

IN THE DRAWINGS

Amendment to the Drawings:

The attached replacement sheet, Figure 1, has been amended with a Prior Art label.

REMARKS

This paper is in response to the Office Action of January 26, 2005. The due date for response extends to April 26, 2005.

The Examiner is thanked for his very careful review of the pending application and its claims.

The correction to the Specification has been made as requested by the Examiner. No new matter has been added.

Fig. 1 has been amended as the Examiner requested. Again, no new matter has been added.

The objections to claims 1, 3 through 9, inclusive, 12, 14, 16, and 19 have been noted and the claims amended as indicated by the Examiner.

Claims 4 through 13 were allowed in the Office Action.

The Examiner noted that claims 2, 3, 16 and 19 would be allowable if rewritten in independent form including all the limitation of the base claims and any intervening claims. Applicants have amended these claims in the prescribed manner and believe that they are allowable without further comment.

Claims 1, 14, 15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Admitted Prior Art (AAPA) in combination with U.S. Patent No. 6,418,353 (Rostoker) and U.S. Patent Application Publication No. 2004/0143797 (Nguyen).

Applicants believe that the Examiner's description and evaluation of the AAPA is substantially correct. However, the elements that are missing from the AAPA are not found in either Rostoker or Nguyen. Therefore, their combination with the AAPA does not make independent claims 1 and 14 and their dependent claims 15, 17 and 18 obvious.

The present invention in both independent claims 1 and 14 requires that a plurality of standard cell variants, each variant designed to compensate for a particular problem in a single manufacturing environment, be available during the design process. The variant that addresses the particular problems of the manufacturing process that will be used to make the ICs is selected and the standard cell designs therein are used.

Rostoker describes an automated, iterative process wherein a single design is adjusted to provide the minimum size design compatible with the particular manufacturing process. The Rostoker system can only enlarge the library based on the minimum feature size that the manufacturing process can provide at an acceptable yield. Each successive design output from the Rostoker system therefore differs only in size from previous ones. The very specific teaching of the present invention is that the multiple standard cell library variants each compensate for a particular known problem with the particular manufacturing process. These variants can alter their devices' contacts with respect to the baseline standard cell library, etc. The modification of particular device features within each variant finds no counterpoint in the Rostoker patent which only varies the size of the final standard cell library in response to all manufacturing issues. Rostoker in combination with the AAPA therefore does not make pending independent claims 1 and 14 obvious.

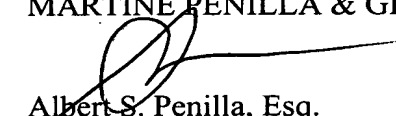
Nguyen discusses a particular 7-track standard cell library that is designed for device geometries of 0.12 microns or less. Only one standard cell library is described and no mention is made of having more than one standard cell library. There is indeed no mention even of optimizing the single library for manufacturing issues. In short, Nguyen does not add the teaching missing from Rostoker to make independent claims 1 and 14 obvious, even in combination with the AAPA.

As independent claims 1 and 14 are allowable over the cited references, the claims that depend thereon, claims 15, 17 and 18 are also allowable.

A Notice of Allowance for all pending claims is respectfully requested.

If the Examiner has any questions concerning the present amendment, the Examiner is kindly requested to contact the undersigned at (408) 749-6903. If any other fees are due in connection with filing this amendment, the Commissioner is also authorized to charge Deposit Account No. 50-0805 (Order No. ARTCP047). A duplicate copy of the transmittal is enclosed for this purpose.

Respectfully submitted,
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